I claim

1. A piezoelectric focusing method, a piezoelectric material being controlled to adjust a distance between a lens unit and an electronic imaging device, the method comprising the steps of:

constructing a first table associated with an increased voltage and a second table associated with a decreased voltage for the piezoelectric material;

constructing a bi-directional deformation table by associating voltages in the first table and the second table corresponding to a deformation; and

supplying a voltage to the piezoelectric material according to the bi-directional deformation table for generating a desired deformation and controlling a focusing distance between the lens unit and the electronic imaging device.

2. The piezoelectric focusing method as in claim 1, wherein the piezoelectric material is a deformable material with hysteretic characteristic.

3. The piezoelectric focusing method as in claim 1, wherein the piezoelectric material is expanded or shrunk according to an applied voltage thereon.

4. The piezoelectric focusing method as in claim 1, wherein the electronic imaging device is a CCD (charge coupled device) or a CMOS sensor.

5. The piezoelectric focusing method as in claim 1, wherein the step of constructing the first table is performed by increasing a supplied voltage from

one associated with a minimal deformation to another associated with a maximal deformation.

6. The piezoelectric focusing method as in claim 1, wherein the step of constructing a second table is performed by decreasing a supplied voltage from one associated with a maximal deformation to another associated with a minimal deformation.

7. The piezoelectric focusing method as in claim 1, wherein the step of constructing the bi-directional deformation table is performed by associating voltages on the first table related to an expanding operation and the second table related to a shrinking operation corresponding to a same deformation.

8. The piezoelectric focusing method as in claim 1, further , after the step of constructing the bi-directional deformation table, comprising a step of

storing the bi-directional deformation table.

9. The piezoelectric focusing method as in claim 1, wherein the step of supplying a voltage to the piezoelectric material according to the bi-directional deformation table is performed for expanding and shrinking.

10. A piezoelectric focusing apparatus, comprising:

an electronic imaging device;

at least one lens arranged on one side of the electronic imaging device;

a piezoelectric material placed between the lens and the electronic imaging device and used for adjusting a distance between the lens unit and the

electronic imaging device; and

a controller electrically connected to the piezoelectric material and having a built-in bi-directional deformation table, the controller supplying a voltage to the piezoelectric material according to the bi-directional deformation table for generating a desired deformation and controlling a focusing distance between the lens unit and the electronic imaging device.

11. The piezoelectric focusing apparatus as in claim 10, wherein the electronic imaging device is a CCD (charge coupled device) or a CMOS sensor.

12. The piezoelectric focusing apparatus as in claim 10, wherein the piezoelectric material is a deformable material with a hysteretic characteristic.

13. The piezoelectric focusing apparatus as in claim 10, wherein the piezoelectric material is expanded or shrunk according to voltage applied thereon.

14. The piezoelectric focusing apparatus as in claim 10, wherein the bi-directional deformation table is constructed by associating voltages on a first table related to expanding operation and a second table related to shrinking operation corresponding to a same deformation.

15. The piezoelectric focusing apparatus as in claim 10, further comprising a storage unit electrically connected to the controller and used for storing the bi-directional deformation table.